

AMENDMENT TO THE SPECIFICATION:

Please replace paragraph 44 of the specification with the following:

In Fig. 7, a function approximator 702 is delivered from the model development machine 104 to the test machine 106. A function approximator is a model which approximates a function. For example, a regression model may be used as a function approximator. Alternatively, a neural network may be used as a function approximator. Referring to the flow diagram portion of Fig. 7, the test machine 106 determines whether it is in converter drive mode in a first decision block 710. If the test machine 106 is in converter drive mode, the output torque of the torque converter is computed in a first control block 712, preferably using measured speed ratios and torque tables. In a second control block 714, the computed torque is compared with an estimated torque from a neural network 604 located on the test machine 106, and a torque estimation error is determined. If, in a second decision block 716, it is determined that online adaptation of the test machine neural network 604 is required, then at least one neural network weight on board the test machine 106 is tuned to correct the neural network output. Tuning may be done by the tune neural net weights 718. The compensation is illustrated on a first graph 704 of machine output torques, in which the converter output torque plot is adjusted from an initial model estimation value to a modified model estimation value. It is noted that the step in the first control block 712 is not always available for computing the output torque due to operating conditions of the test machine 106. Therefore, the estimated torque output provided by the neural network 604 provides a method to determine torque at all times during operation of the test machine 106.